

4.12 SOCIOECONOMICS

4.12.1 Summary and General Assumptions

Social and economic factors in the region will be affected by many resource management decisions. Social and economic analysis is related to the following actions on BLM lands. These sections should be consulted for specific descriptions relative to each alternative. Where no analysis is present, a negligible effect is assumed. Effects of alternatives discussed directly include:

- Land and Realty (under affects common to all)
- Forage
- Minerals
- Recreation and OHV

Effects of alternatives for the following resource areas are also considered:

- **Cultural Resources** – Cultural resource actions include proposed changes to Mineral exploration and interpretive facilities. These changes are also captured in the Minerals section, and are discussed only one time relative to that section.
- **Lands and Realty** – The withdrawal of lands from minerals exploration is discussed in this section. The actions proposed in this section are summarized in the oil and gas section of the document, and impacts are assessed only once relative to the oil and gas section.
- **Roads and Travel (OHV)** – Off Highway Vehicle Travel is discussed in the recreation section of this document.

4.12.1.1 Proportional Impacts

Based on the information presented in Chapter 3, certain counties rely more heavily on various market sectors of the economy. Counties with a high proportion of oil, gas and mineral leases on BLM-administered lands would experience proportionally higher impacts than the rest of the VPA. Similarly, counties with a higher proportion of recreation lands, and thus tourism, would experience more impact than other counties in that market sector. Based on this concept, the following is assumed about the counties within the study area:

- Effects of minerals management will be greater in Uintah and Duchesne Counties, where the economy is largely driven by this industry.
- Effects of recreation management will be greater in Daggett County, where recreation and tourism is the driving force in the economy.

4.12.1.2 Qualitative Versus Quantitative Data

Economic impacts are considered with respect to each major sector of the economy in the VPA. Where quantitative data is available a more detailed analysis is shown. Where quantitative data is not available, a qualitative analysis is performed based on the best available data.

4.12.2 Impacts Common to All Alternatives

The following sections discuss per resource, the impacts common to all alternatives that may have a measurable effect on socioeconomics.

4.12.2.1 Lands and Realty

Management decisions common to all in lands and realty would provide a long term beneficial effect to social goals of communities by accommodating community growth and development when it is determined that is in compliance with other goals and objectives in this plan. This statement allows communities to follow the guiding documents of their General Plans, that state the current identity and future desires of each community in the region.

Land tenure adjustments would also have a long-term beneficial impact by considering adjustment in land tenure to ensure public access to lands in areas where access is needed and cannot otherwise be obtained. This action common to all alternatives would provide a long-term beneficial effect to communities within the region, providing the potential for land exchanges that could benefit local economies.

4.12.2.2 Minerals

Management Common to All states that, “an effect common to all would be the facilitation of the development by private industry of public land mineral resources in a manner that satisfies national and local needs and provides for economical and environmentally sound exploration.

It is important to note that the following analysis is based on the assumption that the demand for oil and gas resources will remain high over the next 20 years, and that private industry will continue to respond to demand. Should the demand for oil, gas and minerals subside, it is possible that the wells proposed in each alternative would not be developed.

Areas open to exploration would have an adverse effect on the recreation and tourism industry. The trend of well development outlined in the Mineral Potential Report, predicts a maximum of 6,530 wells being developed over the next 15-20 years, could have a long term adverse effect on the tourism sector of the economy by reducing contiguous areas available for outdoor recreation, and affecting the quality of recreational experiences.

The quality of the recreational experience would be degraded with possible decreases to visual quality and opportunities for solitude, created by dust, noise, and traffic. Tourism generates tax revenue that is used to support the local community, which would potentially decrease if visitation decreases. Reducing outdoor recreation opportunity and quality could also effect employment in this sector, especially in Daggett County where approximately 30% of all jobs are related to the tourism industry (Utah Department of Workforce Services 2002). A decrease in recreation activities including wildlife viewing and hunting, mountain biking and OHV use would cause a decrease in visitor spending in the region, thus decreasing the tourism economy and the number of dollars spent on local goods and services.

While oil and gas well development would be restricted by the management actions under each alternative, market demand, and industry trends, major development is still projected. Assuming the continuation of the trend in well development, the amount of jobs available in this industry would increase, which would increase overall prosperity in the region, since wages in this sector of the economy are typically higher than service or government related jobs. Increasing jobs would also increase the population in the region, as jobs would likely create an in-migration to communities. This would increase the need for social services and infrastructure.

Developing alternative sources of energy (wind, solar, geothermal) would have both short-term and long-term beneficial effects on local economies. Short-term benefits would be associated with the construction phase while long-term benefits would be associated with the operation and

maintenance of facilities. Development of alternative sources of energy would augment the supply of electrical power in the area and support some expansion of the local economy through increases in jobs and income.

4.12.2.3 Recreation

Expanding infrastructure for recreational activities in order to increase health and human safety would provide a long-term beneficial impact by creating a better environment for recreation, drawing more visitors to the area, and consequently increasing traveler spending.

4.12.3 Alternative Impacts

4.12.3.1 Effects of Forage Decisions on Socioeconomics

As noted in Chapter 3, demand for AUMs has never outpaced the allocation of AUMs for livestock grazing. Since each of the alternatives proposed for consideration exceed the demand for AUMs, the socioeconomic impact would be the same for each and includes both social and economic considerations. Uintah and Duchesne Counties have expressed the desire to remain an agricultural community, with most agriculture in the grazing industry. First, the allocation of AUMs for livestock in each of the alternatives would fulfill the goals of the community. Second, the economy tied to grazing would not be affected because current grazing would continue.

4.12.3.2 Effects of Minerals on Socioeconomics

The greatest socio-economic effect from Minerals decisions would be from changes to the oil and gas program that currently exists in the VPA. Short term, direct, and indirect effects of each alternative are described below based on the following assumptions (in addition to the assumptions described in the mineral section):

- **Development Costs** – A single well would have a total drilling and completion cost of approximately \$600,000 according to the Independent Petroleum Association of Mountain States (IPAMS).
- **Employment** – a single well would employ approximately 34 employees over the life of the well, including approximately 30 for the first month of the well for drilling and initial set up, and 4 employees for further maintenance and workovers. It is important to note that, due to the nature of work where much of the work is performed within the first month, long term employment is approximately 15% of total employment for well development. Initial construction would draw employees from both local and regional bases and may not be as large a contributor to the local economy as the long-term employment, which is more likely to draw employees from the local community.
- **Production** – a percentage increase of wells would translate to the same percentage increase in production in the region. Average value of oil and gas in the region is multiplied by production to achieve a regional, long-term sales figure for the region based on the potential for well development under each alternative.

4.12.3.2.1 Alternative A

Under, Alternative A, a total of 1,843,265 acres are open to oil and gas development under Standard Stipulation, Timing and Controlled Surface Use, and No Surface Occupancy categories of oil and gas development. The total predicted wells developed would be 6,312, a decrease of 19 wells or 0.3 % compared to Alternative D – No Action Alternative.

Decreases in the total number of potential wells would have a long-term adverse effect on socioeconomics. Minerals decisions under Alternative A would decrease the costs of developing the total predicted oil and gas wells by \$12 million when compared to Alternative D – No Action Alternative. The potential for well development would create a total cost of development of \$3.8 billion over 20 years, or approximately \$189 million over one year.

Decreases in the number of potential wells that could be developed under Alternative A would have a long-term direct adverse effect on jobs, with a decrease of approximately 97 jobs in one year, and approximately 645 over 20 years. This alternative would also decrease product sales by approximately \$570 million for oil and \$75 million for gas when compared with Alternative D – No Action Alternative.

Royalties paid to the state from oil and gas sales on federal lands would decrease in proportion to the decrease in production having a long-term adverse effect on socioeconomics. Royalties paid to the state would decrease by 0.3% compared to Alternative D – No Action Alternative. Since a portion of mineral royalties are returned to counties through Payment In Lieu of Taxes (PILT), the amount returned to the counties would also decrease slightly compared to Alternative D – No Action Alternative. A decrease in PILT would correspondingly decrease the amount of funding available for public services.

Decreasing jobs in this sector also decreases the dependency of the region on this industry and consequently decreases the risk of economic downturn due to a bust cycle in oil and gas.

4.12.3.2.2 Alternative B

Alternative B would open a total of 1,861,450 acres in the Standard Stipulation, Timing and Controlled Surface Use, and No Surface Occupancy categories for oil and gas development. The total predicted wells would be 6,312, an increase of 20 wells or 0.3% compared to Alternative D – No Action Alternative.

An increase in the total number of potential wells would have a long-term beneficial effect on socioeconomics. Minerals decisions under Alternative B would increase development costs for oil and gas wells by \$586,000 compared with Alternative D – No Action Alternative. The potential for well development would create a total cost of development of \$3.8 billion over 20 years, or approximately \$190 million over one year.

The increase in the number of potential wells that would be developed under Alternative A would have a long-term direct beneficial effect on jobs. An increase of 20 potential wells over Alternative D – No Action Alternative would create an increase of approximately 665 jobs in this industry over 20 years, and approximately 100 jobs in one year. Minerals decisions under this alternative would increase total production sales by approximately \$590,000 for oil and approximately \$780 million for gas when compared to Alternative D – No Action Alternative.

Royalties paid to the state from oil and gas sales on federal lands would increase in proportion to the increase in production having a long-term beneficial effect on socioeconomics. Royalties paid to the state would increase by 0.3% compared to Alternative D – No Action Alternative. An increase in PILT would increase the amount of funding available for public services.

Increasing jobs in this sector also increases the dependency of the region on this industry and consequently increases the risk of economic downturn due to a bust cycle in oil and gas.

Alternative B would have the greatest amount of surface disturbance associated with development of wells. An increased number of wells could have a long-term adverse impact on

the tourism sector of the economy by reducing contiguous areas available for outdoor recreation, and affecting the quality of recreational experiences from visual intrusion and fragmented areas and trails. Tourism generates tax revenue that is used to support the local community, which would decrease if visitation decreases. Reducing outdoor recreation opportunity and quality could also effect employment in this sector.

4.12.3.2.3 Alternative C

Alternative C would open a total of 1,685,754 acres in the Standard Stipulation, Timing and Controlled Surface Use, and No Surface Occupancy categories for oil and gas development. The total predicted wells under Alternative C would be 5,751, a decrease of 580 wells and 9.2% compared to Alternative D – No Action Alternative.

Decreases in the total number of potential wells would have a long-term adverse effect on socioeconomics. Minerals decisions under Alternative C would decrease costs for oil and gas development by \$17 million compared to Alternative D – No Action Alternative. The potential for well development would create a total cost of development of \$3.4 billion over 20 years, or approximately \$172 million over one year.

A decrease in the number of predicted wells compared to Alternative D – No Action Alternative would decrease the potential for jobs in this industry by approximately 20,000 over 20 years, and approximately 2,957 jobs in one year. Compared with Alternative D – No Action Alternative, a decrease in total production value would occur, with overall revenue from oil decreasing by approximately \$17.19 million and gas by \$22.55 million.

Royalties paid to the state from oil and gas sales on federal lands would decrease in proportion to the decrease in production compared to Alternative D – No Action Alternative. Since a portion of mineral royalties are returned to counties through Payment In Lieu of Taxes (PILT), the amount returned to the counties would also decrease. The decrease in PILT would decrease the amount of funding available for public services. The potential for long-term indirect effects from increased royalties would be most adverse for Uintah and Duchesne Counties, where most oil and gas exploration would take place.

Decreasing the number of jobs in this sector also decreases the dependency of the region on this industry and consequently decreases the risk of economic downturn due to a bust cycle in oil and gas. Alternative C would have the least amount of disturbance associated with well development, and would not effect visitation or the tourism sector to the same degree as each of the other alternatives.

4.12.3.2.4 Alternative D – No Action

Current allocation for Standard Stipulations, Timing and Controlled Surface Use, and No Surface Occupancy categories for oil and gas development areas includes a total of 1,672,960 acres available for oil and gas development. A total of 6331 wells are predicted under this alternative. Jobs would be approximately 215,260 over 20 years. Total potential sales value of oil would be approximately \$189 million with the total sales value of gas at approximately \$248 million.

Long term indirect effects of an increase in potential of 73 wells include an increase in the royalties paid to the state, and consequently the PILT payment to the counties. This alternative would continue the susceptibility of the boom and bust cycle.

Increasing the number of jobs available in this industry would potentially increase overall prosperity in the region, since wages in this sector of the economy are typically higher than service or government related jobs. Increasing jobs would also potentially increase the population in the region, as jobs would likely create an in-migration to communities. This would create an increased need for social services and infrastructure.

The following table summarizes the effects of oil and gas development on the economy.

TABLE 4.12.1. SUMMARY OF THE EFFECTS OF OIL AND GAS DEVELOPMENT IN THE VPA				
	Alternative A	Alternative B	Alternative C	Alternative D
<i>Predicted Wells</i>				
Total Acreage Open	1,914,000	1,914,000	1,914,000	1,725,500
Acreage Open	1,843,265	1,861,450	1,685,754	1,672,960
% of Total Acreage Open	96%	97%	88%	97%
Total Well Potential	6312	6351	5751	6331
Difference in Well Potential w/ Alternative D	-19	20	-580	0
% Difference from No Action	-0.3%	0.3%	-9.2%	0.0%
<i>Jobs (based on average number of employees per well)</i>				
Total Jobs over 20 years	21,4615	21,5924	19,5544	21,5260
Change in Jobs over 20 years (jobs)	(645)	665	(19,716)	
Change in Jobs over 1 year	(97)	100	(2,957)	
<i>Development Costs (based on average \$600,000 development cost per well)</i>				
Development Cost over 20 Years	3,787,322,213	3,810,428,997	3,450,775,429	3,798,700,249
Development Cost over 1 year	189,366,111	190,521,450	172,538,771	189,935,012
Change in Costs for Developments (\$)	(568,902)	586,437	(17,396,241)	
<i>Industry Sales (based on change in production x average value of commodity)</i>				
Change in Potential Sales Values - Oil (in millions of dollars)	(0.57)	0.59	(17.19)	
Change in Potential Sales Values - Gas (in millions of dollars)	(0.75)	0.78	(22.55)	
Total Potential Sales Value - Oil (in millions of dollars)	188.96	190.12	172.34	189.53
Total Potential Sales Value - Gas (in millions of dollars)	247.93	249.46	226.13	248.68
<i>Royalty Values (based on change in production x existing royalty value in 2001)</i>				
Approximate Change in Royalty Value	(25,932)	26,914	780,714	
Total Estimated Royalties to State	8,577,192	8,630,003	7,822,916	8,603,107

4.12.3.3 Effects of Recreation and OHV on Socioeconomics

The relationship between changes in land use decisions pertaining to recreation use, and the economic impacts associated with those changes is difficult to quantify. Some assumptions include:

- Increasing recreation opportunities could positively affect visitation, which could also affect overall traveler spending in the region and thereby benefiting local businesses.
- Improving the recreation experience would have an effect on the social aspects of recreation, potentially increasing visitation.
- With increased recreation use, local businesses could benefit economically.

Development or limitation of recreation areas and facilities would affect socioeconomics in two ways. First, from a social perspective, improving the quality of recreation experience could also improve quality of life factors for surrounding residents by providing greater opportunity.

4.12.3.3.1 Alternative A

Alternative A would have long-term indirect beneficial effects to socio economics by providing the greatest increase to recreation potential with the establishment of new recreational activities, the expansion and improvement of current recreational facilities, and the limitation of other uses. The effects may increase visitation, and potentially increase overall tourist spending in surrounding communities. Alternative A also provides the greatest potential for an increase in the demand for goods and services and the number of jobs related to this industry. Long-term indirect effects would be beneficial to the local communities in two ways. The local community would have the opportunity to enjoy a larger number of recreation sites, as well as have a higher quality recreational experience in the areas mentioned above.

4.12.3.3.2 Alternative B

Recreation and OHV management decisions under Alternative B closely matches the recreational opportunities provided in Alternative D – No Action, the current trend in the economics associated with tourism would continue (described below under Alternative D). Alternative B would provide slightly fewer opportunity for recreation than Alternative A, therefore having slightly less beneficial long-term direct and indirect impacts.

4.12.3.3.3 Alternative C

Alternative C is similar to Alternative A and would have similar long-term beneficial effects to socioeconomics. Alternative C would provide more potential for increased visitation and contribution to the economic conditions of the region than Alternative B, but less potential for economic gain than Alternative A.

4.12.3.3.4 Alternative D – No Action

The long-term direct effects of Alternative D – No Action would be the continuation of current visitation patterns and trends, and a continuation of the existing tourist economy. Current recreation opportunities support a total visitation of 542,000, with total traveler spending at \$83,700,000 and total tax benefit of all three counties at approximately 1.6 million. A total of 1,578 jobs are attributable to recreation.

4.12.4 Unavoidable Adverse Impacts

There would be no unavoidable adverse impacts to socioeconomics.

4.12.5 Short-term Uses Versus Long-term Productivity

There are no foreseeable issues for short-term use versus long-term productivity.

4.12.6 Irreversible and Irretrievable Impacts

There are no foreseeable irreversible or irretrievable impacts to socioeconomics.